BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of Work :- Detailed Estimate for:-Improvement of electrical installtions in Yelahanka Old Town and Allalasandra lake Parks.

Budget Head .....

Division No. ~~32~~ 31 Estimate No. 32/24-25 For Rs.= **3000000.00**

Sl No	SR Page No	Description of Work	Unit	Qty	Rate.	Amount
1	13/32.14 ESCOMs SR 2023-24	1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 95 Sqmm, 3.5 Core, (21 GI Strips - 4 x 0.8 mm)	Km	0.18	373215.00	67178.70
2	13/32.18 ESCOMs SR 2023-24	1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 240 Sqmm, 3.5 Core, (30 GI Strips - 4 x 0.8 mm)	Km	0.04	862666.00	34506.64
3	13/32.05 ESCOMs SR 2023-24	1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 16 Sqmm, 4 Core, (11 GI Strips - 4 x 0.8 mm)	Km	1.89	141842.00	268081.38
4	6/1.6.1 Vol-1 CSR 23-24	Earth work excavation for pipelines/cables by Manual means upto 600 mm trench width, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, including dressing of excavated surfaces, disposing off or leveling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m. Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering and lift upto 1.5 m including cost of labour, tools, usage& other appurtenances required to complete the work.In all kinds of soils. Depth upto 1.50m	m	210.00	484.00	101640.00
5	52/21.06 ESCOMs SR 2023-24	Laying of cable in Existing Trench/GI pipe/Stone Ware/RCC Hume pipe using Wooden/Aluminum Rollers as directed by the departmental staff LT Cable 35 to 95 Sqmm	Km	2.11	31139.00	65703.29
6	52/22.10 ESCOMs SR 2023-24	Heat shrinkable Straight Through Joint LT UG Cable 35 to 95 Sqmm	Set	3.00	284.00	852.00
7	18/42.07 ESCOMs SR 2023-24	1.1 kV, LT Aerial Bunched Cable, XLPE insulation confirming to IS-14255: 1995 3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum Neutral)	Km	2.60	164831.00	428560.60
8	18/43.01 ESCOMs SR 2023-24	Accessories for ABC Cables as per NF-33, as per IS-13573 for Joints & Terminations Suspension Clamp suitable for insulated Messsenger wire of size 25 to 95 Sqmm	No	4.00	355.00	1420.00
9	19/43.12 ESCOMs SR 2023-24	Piercing Connector Suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connection	No	25.00	186.00	4650.00
10	19/43.16 ESCOMs SR 2023-24	Dead End Clamp/Anchor Clamp Assembly 25 to 95 Sqmm Bare Messenger(Exclusive of Pole Clamp and Eye Hook)	No	10.00	152.00	1520.00
11	19/43.25 ESCOMs SR 2023-24	Pre - Insulated Lug - CPTAU for 25 Sqmm	No	20.00	287.00	5740.00

12	19/43.35 ESCOMs SR 2023-24	Pole Clamp for HT/LT AB cable	No	80.00	109.00	8720.00
13	54/24.04 ESCOMs SR 2023-24	Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x25) (Street Light Control)	Km	2.60	33660.00	87516.00
14	54/24.12 ESCOMs SR 2023-24	Installation of Insulation piercing connector for Main to Street Light Main : 16-95 Sqmm, Tap: 1.5-10 Sqmm (EP95)	No	80.00	90.00	7200.00
15	54/24.22 ESCOMs SR 2023-24	Installation of Pre-Insulated Lug - CPTAU for 25 Sqmm	No	20.00	160.00	3200.00
16	22/5.52.5 PWD Ele SR 2-23-24	Supply and fixing of 3-pole Capacitor switching contactor with NO/NC contacts and inbuilt damping resistor to protect the contactor and capacitor from highest in rush current, fixed on existing wood/panel board using necessary bolts, nuts, washers and wiring etc.,complete with AC690V Rating operational voltage, 50HZ frequency and as per IS 60947-4-1.50 KVAR	Each	1.00	15067.00	15067.00
17	16/ 5.14.2 PWD Ele SR 2-23-24	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947. 32 A	Each	9.00	4090.00	36810.00
18	19/ 5.37 PWD Ele SR 2-23-24	Supplying, fixing and wiring heavy duty low voltage capacitors conforming toIS2834. 3phase, 400/440Vgrade, for power factor improvement of rotating machineries like induction motor.	Each	3.00	480.00	1440.00
19	19/ 5.33 PWD Ele SR 2-23-24	Supplyingofmulti function digital meter with three lineback light LCD type display for voltage,Current, frequency, Power, power factor, kVA, kWH, kVARsuitable for 3phase,4wireLTnetwork with IP54 degree of protection and completely wired as required with communication Port and Class 0.5s accuracy	Each	1.00	9315.00	9315.00
20	20/5.40.3 PWD Ele SR 2-23-24	Supplying ..... A rated 3phase with neutral bus bar using required capacity electrolytic aluminium strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic /FRP/DMC insulator which aremounted on powder coated 40x6mmM.S.flat framework inexistingpanel board.The busbar shall havesuitable holes for termination of incoming and outgoing cables as per IS specification with necessary bolts, nuts and washers etc., complete.400 A 4 x 50 x 10 mm Aluminium Strips	Each	2.00	4445.00	8890.00
21	20/5.40.2 PWD Ele SR 2-23-24	Supplying ..... A rated 3phase with neutral bus bar using required capacity electrolytic aluminium strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic /FRP/DMC insulator which aremounted on powder coated 40x6mmM.S.flat framework inexistingpanel board.Thebusbar shall havesuitable holes for termination of incoming and outgoing cables as per IS specification with necessary bolts, nuts and washers etc., complete.250 A 4 x 30 x 10 mm Aluminium Strips	Each	2.00	3435.00	6870.00
22	20/ 5.42.3 PWD Ele SR 2-23-24	Fabricating supplying and mounting MSboxmade out ....SWG suitableforfloor /wallmounting, fullyweather proofwith provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessarycable entry pipe with gland and box should be finishedwith7tanks treatment withpowder coatedpaint and finally finished with approved colour etc., complete.18 SWG	Sqcm	62000.00	0.38	23560.00

23	20/5.41.2 PWD Ele SR 2-23-24	Supplyingand fixingangle iron framework fabricatedout ofM.S. angle iron.. andM.S. Flat.....withbolts,washers etc., andpainted with 2 coats of red oxide and then two coats of approved paint.50 x 50 x 6 mm	m	32.00	395.00	12640.00
24	22/5.55 PWD Ele SR 2-23-24	Rotary handle for MCCB	Each	4.00	3748.00	14992.00
25	19/5.29 PWD Ele SR 2-23-24	Supplying, fixing and wiring 3 Phase Digital Ammeter / Voltmeter	Each	2.00	1425.00	2850.00
26	18/ 5.21 PWD Ele SR 2-23-24	Supplying, fixing and wiring earth leakage relay with core balanced current transformer suitable for single phase 50Hz AC with latest microcontroller based, digital read out of percentage leakage current, programmable delay/auto /manual reset facilitysuitable tomounton DIN rail/ flush mounting on panel board.	Each	2.00	9255.00	18510.00
27	17/5.15.9 PWD Ele SR 2-23-24	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with adjustable thermal magnetic release, Microprocessor release shall have Earth Fault as per IS/IEC60947-2. (Icu=100%lcs). In 4PMCCB, all Poles should have protection for Short-Circcuit/ Over Load. For Microprocessor MCCBS Facility for segregating Priority and Non-Priority loadsmust be available in the MCCB.MCCB shall be provided with double insulation (insulation between front cover and internal powercircuits to avoidany accidental contact with live current carrying path with the front cover open). Multi-pole breakers shall be designed to break all the poles simultaneously and they shall have a single echanism.FOUR Pole 100 A 25 kA	Each	2.00	8487.00	16974.00
28	17/5.15.11 PWD Ele SR 2-23-24	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with adjustable thermal magnetic release, Microprocessor release shall have Earth Fault as per IS/IEC60947-2. (Icu=100%lcs). In 4PMCCB, all Poles should have protection for Short-Circcuit/ Over Load. For Microprocessor MCCBS Facility for segregating Priority and Non-Priority loadsmust be available in the MCCB.MCCB shall be provided with double insulation (insulation between front cover and internal powercircuits to avoidany accidental contact with live current carrying path with the front cover open). Multi-pole breakers shall be designed to break all the poles simultaneously and they shall have a single chanism.Four Pole 160 A 25 kA	Each	1.00	13447.00	13447.00
29	17/5.15.16 PWD Ele SR 2-23-24	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with adjustable thermal magnetic release, Microprocessor release shall have Earth Fault as per IS/IEC60947-2. (Icu=100%lcs). In 4PMCCB, all Poles should have protection for Short-Circcuit/ Over Load. For Microprocessor MCCBS Facility for segregating Priority and Non-Priority loadsmust be available in the MCCB.MCCB shall be provided with double insulation (insulation between front cover and internal powercircuits to avoidany accidental contact with live current carrying path with the front cover open). Multi-pole breakers shall be designed to break all the poles simultaneously and they shall have a single echanism.FOUR Pole 400 A 36 kA	Each	1.00	28216.00	28216.00

30	18/ 5.18.9 PWD Ele SR 2-23-24	Supplying&fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicatorON/OFF, energycross-3 withShort circuitbreaking capacityof10Kandcomplete wiringas requiredconfirmingtoIEC 60898.50-63 A TPN	Each	10.00	3088.00	30880.00
31	45/11.8.5 PWD Ele SR 2-23-24	Supply of LED Street light luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mauling with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100 V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with ..... W System Power consumption. LED Efficiency> 1301m/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL / CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark / name shall be Engraved / Embossing on the die cast housing / Body part Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source. LED Streetlight 120 W	Each	80.00	10060.00	804800.00
32	45/11.9.5 PWD Ele SR 2-23-24	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mauling with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100 V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with ..... W System Power consumption. LED Efficiency> 1301m/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL / CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark / name shall be Engraved / Embossing on the die cast housing / Body part Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source. LED Floodlight 180 W	Each	10.00	15464.00	154640.00

33	56/13.4.1 PWD Ele SR 2-23-24	Supplying and fixing telescopic M.S. bracket fabricated byusing 0.5m length 4" dia telescopic M. S. pipe, with 2" dia1.5m long M.S.Bracket and are welded with suitable angle, using 6mm thick M. S.sheet, grip bolts & nuts, as required, suitable for 9to12 ms.M.S. tubular pole, with necessary two coats of painting, with all other accessories.Single bracket 1.5 m. Length	Each	80.00	1461.00	116880.00
34	56/ 13.5 PWD Ele SR 2-23-24	Fixing halogen/metal halide /SVL/IL/LED floodlight fitting over existingpole /wall ceilingincluding clamps, bolts, nutsandwiring using suitable capacity wires.	Each	10.00	162.00	1620.00
35	56/ 13.6 PWD Ele SR 2-23-24	Fixing charges of post top/ Gate/ Garden fitting /LED on the existing CI/GI or any other pipe using required size of reducer, wiring using suitable wires.	Each	80.00	198.00	15840.00
36	43/ 11.1 PWD Ele SR 2-23-24	Supplying & fixing-flexible LED Strip Light ..... WPower consumption in 5ms length CCT6500 degree K,CRI>70%. efficacy > 80lumenper W, life>25000 burning hours and Compliance toIS 10322/IEC 60598, LM79 & LM80. The LED are driven by HF electronic driver nonintegrated,with PF>0.95, power loss should < 5% of lamp Wage., short circuit &open circuit protection to be integrated in the circuit ,THD less than 20%, Life asper LM79. The operating input voltage should be between 130 to 275 V. BIS Approved with 2 yearsWarranty against any manufacturing defect working under standard electrical condition.	m	94.00	1291.00	121354.00
		Total				**2542083.61**
		Add 18 % GST				**457575.05**
		Misleniuos				**341.34**
		Grand Total Rs				**3000000.00**

CERTIFICATE

1. The Place was inspected and work is essential
2. The Provision made in the estimate is adequate and are necessary.
3. The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.
4. The rates in the Estimate is based on approved rates.
5. The Above Work is not Taken up in any Previous Grants.
6. The AMC Proposed for the Street Lights in the estimate are not under DLP.

Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

Administrative Sanction for Rs. 30,00,000/-
Rupees Thirty Lakhs Only
is accorded under P0298 M and R to
Electrical Installations in
Parks around Gardens ply Ward
Registered as E.E. 28/24-25 Subject
to conditions contained in enclosed memo
No. BBMP/EE/EL42/AS/28/24-25
Dt 08-11-2024
Executive Engineer

TECHNICALLY SANCTIONED FOR Rs: 30,00,000/-
Rupees: Thirty lakhs Only.
Head of Account: P0298
Registered SE No. 80/2024-25 Subject to
condition contained in the enclosed memo
Administratively Approved By:
No. BBMP/EE(EL)/42/AS/28/24-25 Dt.
Tech. Asst. AE
SE (Elec.)